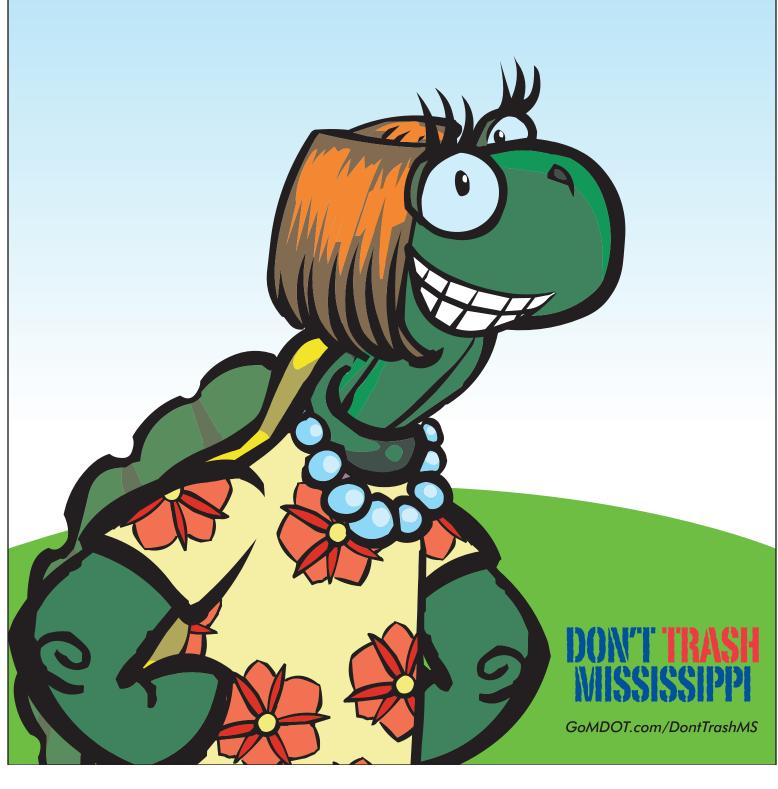
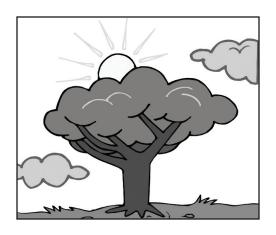
Liter Lesson Plons





Forgotten Language Shel Silverstein

Once I spoke the language of the flowers,
Once I understood each word the caterpillar said,
Once I smiled in secret at the gossip of the starlings,
And shared a conversation with the housefly
in my bed.

Once I heard and answered all the questions of the crickets,

And joined the crying of each falling, dying flake of snow,

Once I spoke the language of the flowers. . . .

How did it go?

How did it go?



Mississippi Litter Facts

- What is Litter? Trash put in the wrong place. Trash DOES NOT belong on the ground, in the streams, rivers or oceans, or along the streets or highways.
- Litter is Ugly. No one likes to live where there is litter. Neighborhoods with a litter problem usually have higher crime, lower property values and less pride in their neighborhood.
- Litter is Expensive. The Mississippi Department of Transportation spends over \$3 million cleaning up litter. This money could be spent for other projects, like repairing roads. Fires started by dropped or dumped litter cause millions of dollars of damage every year.
- Litter is Against the Law. In Mississippi, if you are caught littering from a vehicle, you can be fined up to \$250.
- Litter hurts people. Vehicle accidents can be caused by litter. People in these accidents are injured and sometimes even killed in their attempts to avoid litter in the roadways. Young children fall on litter in playgrounds, get cut and need medical attention. Litter can hurt and injure our Mississippi Department of Transportation Employees who work on state roadways.
- Litter kills or injures animals. Many small animals crawl into bottles or jars and get stuck. Animals get caught in plastic six pack rings, plastic bags, and fishing line. Birds that are stuck, can't fly away from danger. Animals get cut, infected and often die.
- Litter can kill or stunt plant growth.
- Litter is a problem that can be controlled and YOU CAN HELP Make a Difference! One way you can help control litter is by recycling. Recycling means taking materials from products you have finished using and making brand new products with them. For example, most of the aluminum cans in the United States are made with recycled aluminum.



Litter Pledge

Litter Prevention Pledge

I promise to do all I can to make my home, Mississippi, a more beautiful state by helping to keep the streets and highways clean and safe and litter free.

I pledge to always aim to:

- 1. Always put my litter in a trash can.
- 2. Keep our streets and highways litter free.
- 3. Never throw litter from a vehicle.
- 4. Keep the ground, water, beach and park litter free.
- 5. Use a litter bag in my family's vehicle.
- 6. Never throw trash into the bed of a pick- up truck where it can blow out to litter the roads and highways.
- 7. Always keep my home, my yard and my school campus litter free.
- 8. Remind smokers to never throw their cigarette butts on the ground because that is littering.
- 9. Set a good example and to encourage others to Don't Trash Mississippi.

Name:	
Date:	LITTERS TO STATE OF THE PARTY O

Dear Sheriff,
Our class has signed a litter pledge from the Mississippi Departmen of Transportation (MDOT) promising to do our part to "Don't Trash Mississippi". We are committed to help keep Mississippi roadways litter-free.
All of us are aware that litter is ugly, unsafe and hurts our environment. We sure wish everyone would care about the beauty of our state and not use it as a trash can.
Would you please help us by making sure our litter laws are enforced to teach litterbugs a lesson? We know you have a lot to do, but we sure would appreciate it. Thank you for all of the hard work you do!
Sincerely,
Name
School
City/Town

Date _____



Lesson Plans

Engage Effectively in a Range of Collaborative Discussions

Objectives: Student demonstrates an understanding of the meaning and application of reduce, reuse, recycle.

Grade Level: 1-5

Materials:

- Collection of common trash: Glass bottle, Plastic Beverage Bottle, Plastic Bag, Tin Can, Newspaper
- PowerPoint
- 3R Worksheet

Anticipatory Set: The teacher will have the Reduce Reuse Recycle power point projected as the students begin the lesson. The students in a whole group setting will answer the following questions:

- 1. What comes to mind as you read these words in the image?
- 2. What message is someone trying to convey to you?
- 3. What do you know about this topic?

Lesson Description:

The teacher will have the students watch "How Trash is Recycled with LeVar Burton". The power point has a hyperlink attached to the second slide.

The teacher will then begin leading the class in a discussion covering the key terms.

<u>Reduce</u>- (to use less) Invite your students to think what happens to their garbage after it's picked up by the truck. Talk about landfills and show examples of common 'garbage can items' in order to talk about how long it takes for them to decompose/break down:

Glass Bottle
Plastic Beverage Bottle
Plastic Bag
Tin Can
Newspaper
Million Years
450 Years
10-20 Years
50 Years
6 Weeks

Brainstorm ways to reduce the amount of garbage produced.

<u>Reuse</u>- (to put again into service without changing) Invite students to discuss what it means to waste something. Invite students to share ideas about items that can be reused.

<u>Recycle</u>- (to put again into service with changing) Discuss the kinds of things that can be recycled at school and home.

Assessment:

The teacher will organize the students into cooperative groups. Each group will collaborate to sort the items on the power point into reduce, reuse, recycle categories. Some items will fit into more than one category.

Resources:

MDOT

http://sp.mdot.ms.gov/Maintenance/thinkgreen/Pages/Facts.aspx

Time it Takes for Garbage to Decompose http://des.nh.gov/organization/divisions/water/wmb/coastal/trash/documents/marine_debris.pdf

How Trash is Recycled with LeVar Burton https://www.youtube.com/watch?v=FX55cKJvg-g

Common Core

5th Grade

CCSS.ELA-LITERACY.SL.5.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

Names		

REDUCE	REUSE	RECYCLE

Earth Day Brain Break -Litter Critter

Objectives:

The student will be inspired to dispose of litter in an environmentally-friendly way and to teach others to do the same.

Grade Level: 1-5

Anticipatory Set:

Earth Day seeks to inspire awareness of and appreciation for our environment. Challenge students to share some ways they are protecting our Mississippi roadways.

Prerequisites:

Teacher will need to go over the lyrics of the song before the students participate in the brain break.

Materials:

• Lyrics Sheet

Lesson Description:

The students will stand by their desk and move following the student leaders in the video. They will sing the song as they move. Challenge them to move to the steady beat when there are no words. "Act out the words" on each of the verses.

- March
- Pick up trash (pick up then Uzain Bolt)
- March
- Pick up trash (pick up then whip)
- March
- Drop Trash in Can (roll)
- Move Free Style then freeze

LITTER CRITTER

What do you do with a litter critter? (3X)

Here upon our planet!

Hey ho! You teach 'em better (3X)

Here upon our planet!

Pick up the litter, pick up the litter! (3X)

Here upon our planet!

Tell 'em 'till they know better! (3X)

Here upon our planet!

That's what you do with a litter critter! (3X)

Here upon our planet!

Pickin' up litter makes you fitter! (3X)

Here upon our planet!

That's what you do with a litter critter Here upon our planet!

Determine Main Ideas and Supporting Details of a Text Read Aloud

Objectives:

The student will identify solutions to roadway litter caused by unsecured loads.

Grade Level: 1-5

Duration: 15 minutes

Anticipatory Set:

Engage your students by asking if they think Mississippi has a litter problem? They might be surprised to learn that we have 30 percent more litter on our rural roads than other states. Additionally, it costs our state 3 million dollars a year in cleanup efforts. Introduce the chant as a way to learn more about one way litter accidentally ends up on our roadways.

Description:

Tie Down That Load Chant

This is a chant to be read responsively by two groups. It tells the story of how important it is to keep litter from flying out form the back of a pick-up truck.

- 1. Preview chant vocabulary.
- 2. Model how the chant should be read.
- 3. Divide class into two groups assigning them to group 1 or group 2.
- 4. Provide the students a copy of the chant.

CHANT VOCABULARY

<u>Littering</u> - man-made or man transported products or material in the wrong place, make a mess of, be scattered about

Strife - angry or bitter disagreement over fundamental issues; conflict.

Streams - a small, narrow river.

<u>Bungee Cords</u> - a long nylon-cased rubber band, used typically in bungee jumping or for securing luggage.

Tarp - a tarpaulin sheet or cover.

Assessment:

The student will describe the consequences of unsecured load littering and the best ways to prevent it. (The consequences are water, stream and pond pollution. Litter is also harmful to our wildlife and environment. The best ways to prevent truck litter are: clean the truck bed, tie the load down or use a tarp).

Common Core

3rd Grade

- SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- SL.3.2 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

TIE DOWN THAT LOAD!

Group 1: I'm going to tell you a story.

Group 2: A story?

Group 1: A story - about a place we call home,

G2: Mississippi!

G1: That's right.

G2: What's the story about our home Mississippi?

G1: Well, it's about keeping it clean.

All: It's important to keep it clean and beautiful!

G1: When you're traveling down the road, make sure you're not littering.

G2: We'd know if we were littering!

G1: Well, sometimes you don't. What if your truck had garbage in the back, and then the wind attacks! What happens when the wind blows?

G2: The garbage flies right out! Then we want to shout - Oh no! We might be hurting wildlife. It affects our life. We don't want to cause anybody strife.

G1: We might be harming our streams and ponds.

G2: How can we make sure it doesn't happen in our trucks?

All: We know how!

G1: Clean out the back of your truck!

G2: Make sure when you carry things, they're tied down. Don't cause a frown.

Don't be a clown, tie it down.

G1: Ropes and bungee cords will do the trick. That will make everything stick

All: Inside the truck!

G2: A tarp is helpful too. It's all up to you. Do what you can do!

G1: Look it over and make sure it's all secure. Keep our water pure. Look over it to be sure.

G2: Now you're ready to go. Let's go with the show.

All: Take care of our community and keep it beautiful!!!

Every Litter Bit Hurts

Objective: Students will be able to identify and classify types of waste materials/litter and know what types of waste can be redused, reuse, and recycled.

Definition of "litter": human-generated waste (or trash) that is discarded in an inappropriate place (streets, playgrounds, streams, etc.), or improperly stored trash which has escaped from its container (trash can, dumpster, back of truck, etc.).

Part One: What litter is "bad" litter?

All litter is harmful. Littering is an inappropriate behavior and a bad habit that people have learned.

- 1. Get a litter bag from your teacher
- 2. Empty your trash bag and arrange the items so everyone can see them.
- 3. List the items in your bag, and don't forget to include the paper bag.
- 4. Rank the items from least harmful to most harmful.
- 5. Ranking should be a group decision.
- 6. Write why you chose one item over another as harmful.

Part Two: Educating Others

Create a group poster that explains or shows why litter is undesirable. Some ideas are:

- Litter is pollution; it is an eyesore that destroys the beauty of a place.
- Litter can be dangerous; broken glass or metal can injure.
- Litter is often eaten by wildlife and this can lead to injury or death.
- Litter can be a threat to public health; illegally dumped tires are breeding grounds for mosquitoes, and rodents frequent waste piles.
- Even the odor of trash piles can be offensive.

#1 - Monster Litter Bag Craft

Feed the monsters each time you throw away trash with this monster litter bag craft.

Objective: Students will demonstrate a knowledge of how littering hurts the environment.

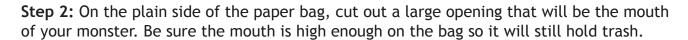
Make a monster litter bag.

What You'll Need:

- Stapler
- Paper grocery bags
- Scissors
- Crayons or markers
- Construction paper
- Tape or glue
- Work gloves

How to make the monster litter bag craft:

Step 1: Staple the top of a large grocery bag closed.



Step 3: Color eyes, ears, nose, and feet on the bag to look like any monster you choose. If you'd like, use construction paper and cut out shapes for the body parts. Tape or glue them onto the bag in the proper places.

You can also cut strips of paper for hair, fur or a mane, and glue them to the bag. Use your imagination.

Step 4: When your monster is completed, put on your work gloves and walk around your yard or neighborhood. Pick up litter, and put it in the bag through the monster's mouth. Don't pick up any broken glass, needles, or other dangerous materials.

Source: http://home.howstuffworks.com

Let Your Imagination Guide You... Plastic Grocery Bags, NO Kidding!

#2 - Litter Bags

Plastic Grocery Bags, NO Kidding!

Turn bags inside out and give each student colored markers and stickers to decorate their own litter bags. You may want to have the "Going Green" theme and award prizes to everyone (prettiest, most colorful, funniest, etc.)



Litter Bugs

Grade 2 and 3

Littering is often times a bad habit. Working with your group, create a skit about littering. Your cast of characters will portray a type of litterbug from the examples below.

- a. The Sport Litter Bug This litterbug loves to attend all type of sporting events and cheer on his team, he samples every type of food from the concession stand, and leaves a pile of food wrappings under his seat.
- b. The Traveling Litter Bug This bug is constantly on the go. When traveling in his car he can be seen continually throwing items out of his window.
- c. The Picnic Litter Bug A true nature lover, this bug loves to enjoy a meal in the outdoors. When he leaves the site (littered with the remains of his meal), he is surprised to find the site not as pretty as he originally found it and vows to find a better spot next time.
- d. The Bad Aim Litter Bug This bug makes a game out of throwing trash in the trash can. He gets one point if the toss is good. If he misses, he figures there's always next time.
- e. The Good Intentions Litter Bug This bug leaves school every day and stops at the convenience store to pick up a snack. After eating the snack the bug looks for a trash can but can't find one. Thinking it will be out of sight this bug drops his trash in a storm drain.

(The above portion of the activity was adapted from Waste in Place by Keep America Beautiful) http://www.kab.org

America the Beautiful

Grade Level: 3-6

Objective: Students will create a visual of the United States representing how trash affects the environment.

Materials:

Litter or other trash
Background support -like construction paper or
cardboard- at least 12" BY 18"
White Glue
Pencil and Eraser
Map of United States



Lesson Description:

The teacher will begin lesson by asking students what they think when they hear the word "litter."

The teacher will lead a discussion into talking about our environment and how people say they care about it, but getting them to do something about it is another matter. Discuss that with Picasso and other artists, sometimes it is necessary to make art that is disturbing in order to get people's attention and activate them. It is with this in mind that the following project is presented and the reminder to students that art is more than just a pretty picture.

The teacher will explain to students the project that they will be doing: Have students study the shape of the United States, and using a pencil, draw this outline on the background support.

Have students locate Mississippi on the map and discuss the size of the state, and identify its cardinal location on the map.

Being careful to follow the shape you have drawn, students will fill in the outline solidly by gluing the trash you have collected all over the map. Students have just recycled! The collage may be displayed with the "America the Beautiful?" title.

This will help remind others to keep America clean.

Assessment:

Students will list three ways they can help to reduce the effects of litter in Mississippi.

Henry Heron, A Litter Story

Grades K-2nd

OBJECTIVES: Students will be able to recognize litter and be able to explain how it may affect animals. They will also be able to identify ways to reduce and prevent littering.

BACKGROUND: Animals need food, water, air, and space. The water and the space must be clean and free of litter to provide a safe and healthy habitat.

MATERIALS: Henry Heron story copy, plastic six pack ring, rubber bands, picture of a heron or stuffed animal

Procedure:

- 1. Ask for a show of hands of students who have ever visited a park with a lake. Discuss the things they saw around the lake and guide the discussion toward litter or trash they might have seen. Emphasize the animals they saw and explain that litter may hurt the animals. If you brought a visual, share it with them. Point out that the heron is a large bird with long legs and neck, and it eats fish in the water. Introduce any new vocabulary words in Henry Heron story before you read the it to them.
- 2. Read Henry Heron stopping in the middle to have students predict what will happen to Henry. After finishing the story, discuss how Henry might have felt and how the people helping Henry might have felt.
- 3. Show a six-pack ring and pass it around so students can see how strong it is.
- 4. Take a large rubber band and fasten it over your thumb and little finger (over the back of your hand). Ask the students if they think it would be easy to remove the rubber band without using their other hand. Let several or all of the students try. Have them discuss how hard it is to remove the rubber band. Talk about how animals have trouble removing items that get caught around their feet and necks since they don't have hands and fingers to help remove the items.

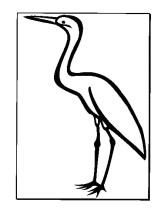
Wrap Up/Assessment

- 1. Have students suggest their own ending or have students retell the major events of the story. Depending upon the level of the students, this might be accomplished verbally, through illustrations, or in writing.
- 2. Ask students the following questions: What are other examples of litter that might be found around a lake? How might these things be dangerous to animals? What can you do to lessen the amount of litter?

Henry Heron

Henry is a heron. He likes to hang out at the park's lake. He often stands as still a statue and waits for minnows to swim by so he can grab a quick snack.

Henry is a very curious heron and always explores the nooks and crannies of the lakes and rivers he visits. One day Henry saw something stuck in the grass near the edge of the lake. "I wonder what that could be?" he thought excitedly as



he went closer. "Oh, it's only a soda can," he sighed. "Another piece of trash left by a lazy person. I don't know why people can't be neater!!"

Just as he was about to wade away, Henry saw a minnow skimming through the water. He did exactly what comes naturally to herons. His head went down and he came up with the minnow in his beak. "Yum!" he said as he swallowed the minnow. "I love good food." Then Henry noticed he had caught more than just the minnow. The minnow had gone beneath a plastic six -pack ring and as Henry had reached to get it, his head had gone through the ring. It was stuck on his long neck!

Henry shook, he wiggled, he rubbed against the grass, he stuck his head into the water ... but nothing he did would remove the plastic ring. "This is terrible, horrible and awful," Henry announced to the world. But no one was listening. Henry gave one more long, lonely shake of this head.

Morning dawned and Henry stretched, but was brought up short. The plastic ring pulled and squeezed his neck, and made it very hard for Henry to breathe. Then some park visitors saw Henry. They chased him, trying to catch him. We know they just wanted to help Henry, but all Henry knew was that he was scared and wanted to get away. He wished he could disappear. He flew away and landed in a nearby clearing.

After a while Henry got hungry and came out to the middle of the lake. He tried to catch some fish but the plastic ring kept getting in the way or it moved, and scared the minnows away. How could he catch some fish? Henry flew to the shore, still hungry. When he got there he was again chased by people. This time, the people were in uniforms.

The next day Henry was tired, hungry, and terribly discouraged. He went over to the other herons. They also chased him away. "You're scaring all the fish away." "You're making people chase us." "You look stupid with that plastic ring thing around your neck!"

"I didn't get it stuck on myself on purpose," Henry said. "I tried to get it off." But the herons just flapped their long wings and left Henry. One of them even pecked at Henry, and you know that had to hurt!

Teacher note: Stop here. Ask the students to predict what they think might happen to Henry.

Henry was resting quietly in a cove of reeds when suddenly he was covered with a net. He flapped and struggled but he couldn't get away. When hands reached for him, he snapped at them with his beak. The people wouldn't give up. They finally got a good hold on Henry and tried to calm him. They held his neck very still and clipped the plastic ring and then pulled it off. When they released Henry he flapped his wings and flew across the lake. Once he had calmed down, he realized the people had helped him and had removed the plastic ring.

"Yes," he said. "I can eat again! I can drink!" and he dipped his head into the water. "I can sleep and eat and do almost anything!!!" Henry was so excited!

Note to teachers and older students:

It would be nice to say Henry was safe for the rest of his life. Many animals never get rescued in the first place and those that do may get caught in litter again. Animals do not remember what has happened to them in the past like people do.

Animals would probably not realize that litter is dangerous to them either. They may even think a piece of litter looks like something interesting to eat and go after it on purpose. We can help by always putting our trash in the right places.

Source: http://www.deq.virginia.gov

Is It Litter Box?

Grades K-4th

OBJECTIVES: Students will be able to differentiate between items that are man-made and those that are natural. They will understand that "trash out of place" such as on roadsides is litter.

BACKGROUND: Natural items might be thought of as those objects that are "made by nature." Man-made items refer to objects that are "made by man or by machine." Those objects found in inappropriate places should be considered litter. If people use a proper waste container or recycling bin instead of dropping or throwing items just anywhere less litter and pollution would be generated. For young students, litter is a good example of pollution.

(Pollution: things, often by-products of production which are harmful to our health and to the environment.)

Less litter and pollution would make communities more attractive and healthier places in which to live.

MATERIALS: Box with a cover; natural and man-made (clean litter items)

Procedure:

- 1. Lay all examples of natural and man-made items on a table. Holding up an object, ask students if they think it was made by nature or man-made. Repeat with other items. Summarize /establish a working definition for both of the terms "natural" and "man-made."
- 2. Have students think about being outside on the playground. Pick 2 or 3 man-made objects from the table. Ask students if they would think the playground was littered if they saw these things laying around. Why? Is this considered pollution? Where should these man-made items be placed so they are no longer littering the playground. Can any of these items be recycled? What does recycled mean?
- 3. Put the man-made items on the floor. Add some natural items. Have students imagine they are eating lunch and see these items on the floor. Determine whether these items need to be removed and where they should be put. Help students conclude that trash out of place becomes litter.
- 4. Put all items into the box. Explain to students that they will now play a game where they will pretend that all of these items are lying along the side of the road. They must pull an object out of the box. It will be tricky because they can't use their eyes. They will have to try to guess what the object is by feeling it. They will have 3 tries to guess. Students then determine whether the object would be naturally found on the side of the road or if it would be considered litter. Last, students need to decide where litter items need to be placed.

ASSESSMENT: Students will write a paragraph or draw a picture comparing their campus with and without litter

Source: http://www.deq.virginia.gov

Dumping is Un-Natural

Grades K-5

OBJECTIVES: Students will understand the negative impact illegal dumping has on the natural beauty of our state.

MATERIALS: bags of garbage collected specifically for this activity, gloves, trash bags

SUBJECT AREAS: Science, Social Studies, Language Arts



VOCABULARY:

Illegal dumping - the disposal of waste at any location that does not have a permit from the Mississippi Department of Environmental Quality (http://www.deq.state.ms.us)

Reuse - the use of a product more than once in its same form for the same purpose or for different purposes.

Recycle - the process of collecting materials from the waste stream and separating them by type, remaking them into new products, and marketing and reusing the materials as new products.

Compost - the decomposition of organic matter into a product used to enrich or improve consistency of soil for growing plants.

Procedure:

- 1. Lay all examples of natural and man-made items on a table. Holding up an object, ask students if they think it was made by nature or man-made. Repeat with other items. Summarize /establish a working definition for both of the terms "natural" and "man-made."
- 2. Have students think about being outside on the playground. Pick 2 or 3 man-made objects from the table. Ask students if they would think the playground was littered if they saw these things laying around. Why? Is this considered pollution? Where should these man-made items be placed so they are no longer littering the playground. Can any of these items be recycled? What does recycled mean?
- 3. Put the man-made items on the floor. Add some natural items. Have students imagine they are eating lunch and see these items on the floor. Determine whether these items need to be removed and where they should be put. Help students conclude that trash out of place becomes litter.
- 4. Put all items into the box. Explain to students that they will now play a game where they will pretend that all of these items are lying along the side of the road. They must pull an object out of the box. It will be tricky because they can't use their eyes. They will have to try to guess what the object is by feeling it. They will have 3 tries to guess. Students then determine whether the object would be naturally found on the side of the road or if it would be considered litter. Last, students need to decide where litter items need to be placed.

- 5. Ask: Where should waste go? Waste should ultimately end up in a permitted sanitary landfill. However, the waste may first go from the household, school or business to a transfer station and then on to a landfill. Many counties in Mississippi do not have a landfill, so the waste may have to travel some distance to its final destination in a landfill.
- 6. Ask: What can be done to make our natural areas that have garbage illegally dumped on them become cleaner, safer places to visit?
 - (1) Clean up the area with adult supervision and using gloves, pick up all the "illegally dumped" waste.
 - (2) Separate waste into different piles of plastics, paper, metals, etc.
 - (3) Can any of these items be reused? If so, how?
 - (4) Can any of these items be recycled? If so, how and where?
 - (5) Is there fruit and vegetable waste that could be composted?
 - (6) Dispose of any remaining wastes properly.
- 7. Explain that this situation was "set up", but there are many real illegal dumps sites along our roadsides, in our parks, and near our rivers and streams,
- 8. Ask: what can be done to eliminate these real illegal dump sites?
 - (1) Organized cleanups
 - (2) Make signs and posters to place in natural areas to discourage illegal dumping.
 - (3) See if local government or sponsors can provide receptacles for trash and recyclables.
 - (4) Write letters to local media providing education on proper disposal/recycling techniques.
 - (5) Write letters to local officials asking for more enforcement action against illegal dumpers.
 - (6) Help educate the people/citizens of your community about the dangers of improper and proper waste disposal.

Assessment Questions:

- 1. What is illegal dumping?
- 2. How does illegal dumping spoil the natural beauty of Mississippi?
- 3. How does illegal dumping affect tourism and developing industry in Mississippi?
- 4. What is the proper way to dispose of wastes?
- 5. What can you do to help eliminate illegal dumping?

Developed by Phyllis Mooney

BIODEGRADABLE?

Grades 1-6

OBJECTIVES: What happe	ens to buried g	arbage?		
MATERIALS: 1 milk c 1 piece 1 piece	of plastic bag		1 cup of water dirt fork (next week)	
Procedure: 1. Fill the milk carton	half way with	dirt.	LETTUCE	PLASTIC
2. Lay the lettuce and of the dirt.	the plastic on	top		
3. Cover the "trash" v	vith more dirt.			
4. Water your garbage	dumps.			
5. Wait a week	then use a for	rk to dig o	out your trash.	
RESULTS: Has the trash changed?	yes	no		
Lettuce	yes	no		
Plastic	yes	no		
How?				
				

ASSESSMENT: Students will discuss ways other materials may be substituted that are more friendly to the environment.

Planet Pleasers

Grades: 3-5

OBJECTIVES: Recognizing the importance of conserving natural resources and protecting the environment.

BACKGROUND: People have an enormous impact on their environment. Each day the population of the world continues to grow, creating more pollution and litter, endangering more plants and animals and consuming more of our natural resources. To prevent further damage to the environment, people must learn to conserve or preserve by limiting the use of natural resources and producing less waste.

One way to preserve our planet is through recycling. Recycling helps conserve our natural resources by creating less garbage and using old products to make new products. Paper, glass, aluminum and several other materials can all be recycled into new products.

Websites: http://www.portal.state.pa.us/portal/server.pt/community/recycling/13955

http://www.dnr.state.wi.us/org/caer/ce/eek/earth/recycle/index.htm

http://kids.niehs.nih.gov/recycle.htm

MATERIALS: clean, empty containers made of paper, plastic, aluminum and glass chart paper, marker

1 capy of student bandout "Pasama a Planet Plasser"

1 copy of student handout "Become a Planet Pleaser"

Introduction: Show students several empty containers made of paper, plastic, aluminum and glass. Ask what the objects all have in common. (They are all made of recyclable materials)

Procedure:

- 1. Share the Background Information with students. Ask them to think of ways the containers above can be recycled or reused. Encourage creative answers. (The websites listed above may be used as a resource)
- 2. Explain to students that we need to recycle to reduce the amount of natural resources used and the amount of pollution and litter produced. Pollution is damage to the environment (land, water, air, plants and animals) caused by trash and other harmful substances. Have students give examples of various pollutants, such as litter on the streets and highways and chemicals being dumped into waterways. Then ask students who they feel are the main producers of pollution (humans); then ask students to name who are the most able to do something about pollution (humans).
- 3. Divide students into groups of four. Direct each group to brainstorm ways people can preserve natural resources and recycle materials at home and at school. Then as each group shares its list with the class, compile the information by recording the group's response on a large sheet of chart paper. Title the chart "Planet-Pleasing Actions" and display it in a prominent spot in the room.

Assessment: Distribute one copy of the student handout "Become a Planet Pleaser." Challenge each student to become a record breaking planet pleaser. Have the student record her/his top planet- pleasing actions from the class list and then record how often he/she completes one of the actions as directed.

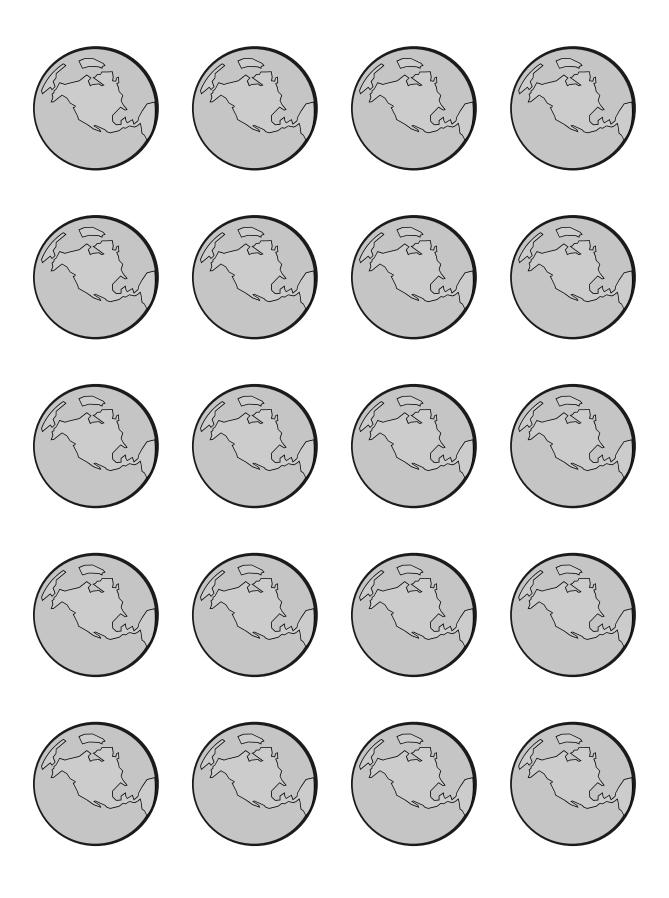
Extension: Have students create a reusable iten from litter/trash.

Source: 1998 The Education Center, Inc., Lifesaver Lessons, TEC512

Become a Record - Breaking Planet Pleaser

globe

Name	
Recycling, picking up trash, and protecting our environment are all ways we can keep our planet healthy and strong. So, how can you become part of the action? Beside the numbers below, record your top "planet pleasing actions" such as not throwing trash of the roads and highways and recycling newspapers. Keep your list in a special place. The any time you complete one of the actions, record that actions number in one of the glocircles. Go for the gold record and fill every circle!	on hen
Top Planet Pleasers	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	





Recycle

Preschool Activity: Recycle!

First, read a recycling themed story (suggestions below). Discuss the story with students.

• Michael Recycle by Ellie Bethel

ISBN: 978-160010224-0

• Why Should I Recycle? by Jen Green

ISBN: 0-7641-3155-9



Next, discuss the items allowed in the local recycling program.

A fun way to do this is to have the children call out "Yes!" or "No!" when you hold up different items.

- Put several items in a curb side bin.
- Pull out one item at time.
- For each item ask, "Can I recycle this in my green bin?"
- Prompt them to say the answer out loud.
- Because the children are very young, make sure the items are easy to guess. For non-recyclable items you may include fun things like teddy-bears, shoes, soccer balls, crayons etc.

Prepare items for the craft a day or two ahead of time. Each child will need a copy of "Preschool Recycle Bin" downloaded from the Keep Henrico Beautiful Web site http://www.co.henrico.va.us/utility/khbeautiful/education.html (this download is meant to be double-sided).

You can also download cutouts for a water bottle, soda bottle, and aluminum can.

Other items to prepare include small squares of different materials accepted in your local recycling program. For example, cut small squares of magazines, newspaper, cardboard, paper board, envelopes, and aluminum foil. Make sure there is enough of each item for every child. Additional items you will need for each child include a green crayon and glue stick.

- Give each child their recycle bin hand-out and a green crayon. Have them color their recycle bin (if they finish quickly they can turn it over and trace the words printed on the back).
- Explain to each child that they will get one sample of each item to recycle. Ask them to arrange the items on the paper before they glue them down.
- Let each child fill their recycle bin by gluing the items down with their glue stick.

The final step is to thank the children for recycling!

Join the Recycling Team

Grades 1-6

THEME: Recycling is a positive action everyone can take.

GOAL: Students will understand that recycling is a team effort in which everyone can

participate.

METHOD: Reading and discussion TIME: 30 minutes

SUBJECTS: Language arts, performing arts

MATERIALS: The Little Red Hen

Getting Started

Ask the students how many people are needed to recycle. Is it easier to recycle when people help one another?

Procedure:

Adapt the story of The Little Red Hen by changing the words. The story follows the original until the section where the hen finds the grains of wheat. Adapt the story to read:

One day when she was hoeing, she found some soda cans. "Who will help me put these soda cans in the recycling bin?" "Not I," said the cat. "Not I," said the dog. "Not I," said the duck. "Then I will," said the hen, and she did.

Each morning when she was cleaning around the house, she saved up all the glass bottles, metal cans, newspapers, and cardboard and put them aside. She stacked the paper and cardboard together and put the glass and cans in a large bin.

When the paper stacks became too high to reach, the Little Red Hen asked, "Who will help me put the newspapers and cardboard in bundles?" "Not I," said the cat. "Not I," said the duck. "Then I will," said the hen, and she did.

When the glass and metal bin was full and there were several bundles of paper and cardboard the Little Red Hen said, "Who will help me take the bin and bundles to the recycling center?"

"Not I," said the cat. "Not I," said the dog. "Not I," said the duck. "Then I will," said the hen, and she did.

So the Little Red Hen piled everything in her car and drove to the recycling center where she put everything in its place. With the money she got for the bottles, she bought a fresh loaf of bread.

The rest of the story can continue until the end, when all the animals help her collect, bundle, and deliver the recyclables to the center.

Source: Kristen Walser

Trash to Treasure

Grades 1-6

THEME: Reusing materials before they are thrown away can conserve landfill space and natural resources.

GOAL: Students will realize they can reduce the trash load by redefining waste as a potential resource.

METHOD: Creating a class treasure chest

TIME: 45 minutes

SUBJECTS: Art, language arts

SKILLS: Creating, observing, making value judgments

MATERIALS: Trash can; old box; scraps of fabric, yarn, paper, ribbons, etc.; egg cartons;

glue; scissors

Getting Started

Does everything that we throw away have to be trash?

Procedure:

- 1. Fill the trash can with the various scrap items and explain to the class that these are things that would normally have been thrown away, never to be used again.
- 2. Have the children come up one at a time and ask them to select several items out of the trash can. Have students use these materials to create whatever they want-a picture, a sculpture, jewelry.
- 3. With the leftover materials decorate the old box to make it look like a treasure chest and have the students come up and place their new "treasure" in the chest.
- 4. Point out that the garbage can is now empty. The students have both reduced the amount of garbage that has to be disposed of and reused it to make something new.

Extensions:

- 1. Read aloud the poem "Johnny." Ask the class to think of other items at school or home that could be reused instead of being thrown away. Have the students create drawings to illustrate these objects and how they would be used in new ways.
- 2. Have the students write a short story or poem about the item they just made. Where did it come from? What did it become? Is it trash or treasure?









JOHNNY

To Johnny a box is a house or a car or a ship or a train or a horse.

A stick
is a sword
or a spear
or a cane,
and a magic carpet
is magic,
of course.

By Marci Ridlon

Wise Use of Paper

Grades 1-6

THEME: Many of our daily habits are wasteful regarding the use of paper.

GOAL: Students will recognize how much paper is wasted and how it accumulates over time

METHOD: Collecting and weighing paper, graphing the results

TIME: 2 weeks

SUBJECTS: Math, social studies

SKILLS: Analyzing, comparing, measuring

MATERIALS: Waste paper; two cardboard boxes; scale

Getting Started

Ask the students how much paper they think they use. How much do they think they waste?

Procedure:

- 1. Each day have the students place in boxes all paper that would normally have been thrown away. In one box, place paper that has been completely used (i.e., written on both sides). In the other, pile paper that has been only partially used or not used at all.
- 2. At the end of the day select a student to weigh each stack of paper and have the class graph the results.
- 3. Follow this procedure every day for a week and discuss the following: Were you surprised at the amount of paper that was wasted? What is the effect of this waste on our natural resources and landfills? How can people change their habits so that there is less waste?
- 4. Repeat the same activity for a second week. How different were the results? List on the board the different ways the students tried to conserve paper. Are there other items that are sometimes thrown away before they are completely used?

Extensions:

- 1. Using the results obtained above, have the class determine how much paper it would waste in a month. In a year? How much paper would the class save in a month or a year if it reduced its paper consumption by one-half? By one-quarter?
- 2. Working in small groups, have the class list the paper products they use at home or at school. In a parallel column, have them list products that could be used in their place (e.g., dishcloths instead of paper towels, handkerchiefs for paper tissues).

Source: Adapted from Washington, A-Way With Waste

Waste Reduction at School

REDUCE

- Use double-sided photocopies to reduce paper consumption.
- Circulate memos via routing slips instead of sending out individual copies.
- Use overheads, marker boards, or blackboards instead of paper flip charts in meetings.
- Convey messages via homeroom representatives or over the public address system.
- Purchase office and classroom supplies in bulk.

REUSE

- Use refillable pens and pencils.
- Reuse old cardboard boxes for storage or for packaging outgoing materials.
- Reuse file folders by reversing the folders or applying new labels.
- Reuse envelopes for internal mailings or filing.
- Post announcements on central message boards.
- Use single-sided sheets of paper as scrap paper for calculations or rough notes.
- Send used books and office equipment to a local charity or social service agency.
- Form a waste exchange within the school or among several schools to enable students and staff to find new homes for unwanted books, clothing, jewelry, sports equipment and other items.
- Take advantage of "student power" (i.e. students in detention could spend the time repairing damaged furniture or sorting items for recycling).

RECYCLE

- Set up bins or boxes for fine paper and recyclables in offices and classrooms. Waste-Not Recycling currently has the recycling collection contract with the Poudre R-1 School District. Set up recycling bins for cans and bottles in convenient locations.
- Try vermicomposting (composting with worms) small quantities of food scraps in the classroom, perhaps as a part of a science project.
- Close the recycling loop: purchase office and classroom supplies such as writing paper, books, paints, and toner cartridges that have recycled content.



Litter Detectives

Grades K-12

The students will develop a positive attitude against littering. Students will develop solutions to help reduce littering.

OBJECTIVE: The student will become familiar with popular attitudes toward recycling and the practice of recycling in the community.

RESOURCES: Duplication of survey forms, chalkboard.

INTRODUCTION: Many items present in household waste are recyclable provided that the householder has the initiative to recycle and a convenient outlet exists for the recycled materials. It has been estimated that recycling takes only a few minutes each day.

Some communities collect recyclable materials with regular garbage collection. Some communities rely on householders to transport recyclables to a collection center. Some collection centers pay for certain recyclable materials.

Recycling helps to conserve energy and natural resources, contributes to the economy, and reduces the amount of municipal waste requiring disposal. Recycling also promotes an awareness of the finiteness of our natural resources and offers an environmentally acceptable method of municipal waste management.

PROCEDURE:

- 1. Engage the class in a discussion on the subject of recycling. Survey the class to determine whether any students assist in a family recycling effort, or recycle on their own. Ask for descriptions of how recycling is accomplished and what materials are recycled. Why do they recycle? Is money earned from the effort? Have any students visited a recycling center? Solicit descriptions and impressions.
- 2. Suggest to the class that it would be interesting to discover how others feel about recycling. A survey could be conducted which would also determine how many others in the school and community recycle.
- 3. Have the class brainstorm a list of questions that they might ask to others about recycling. Suggestions include:
 - Do you know the meaning of the term "recycle"?
 - Do you recycle? Why?
 - Why don't you recycle?
 - Do you think you should recycle?
 - What materials do you recycle?
 - How do you recycle?
 - Where do you recycle?
 - Do you get paid for recycled materials?
 - How much time is devoted to recycling each day or week?
 - Do you think you could recycle more?

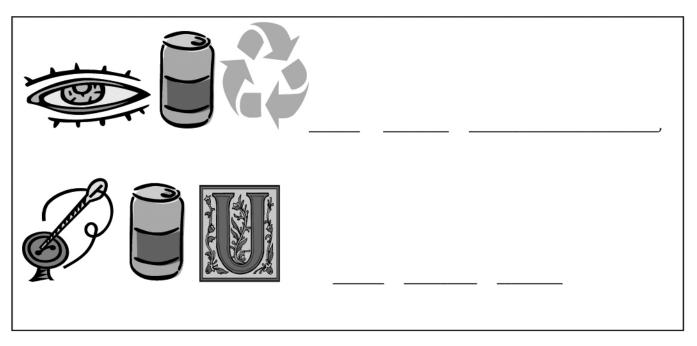
Assemble the questions selected into a logical order and an easily presentable format. Allow sufficient space for answers. A single page survey form limited to ten or fewer questions is suggested.

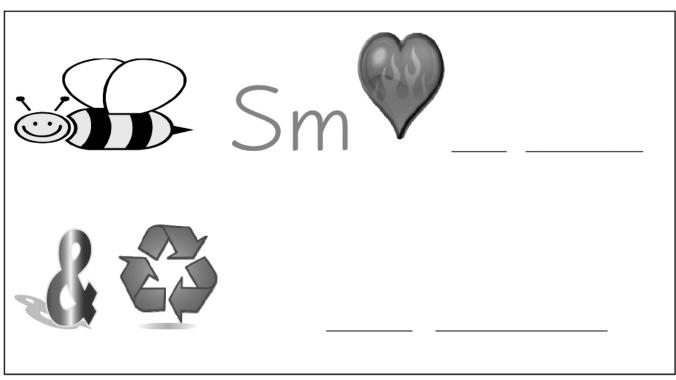


Reproducible Activity Sheets

Brain Twisters

Sound out the pictures to form words. Each box contains a message. Can you write the message?





To find out the answer, fill in the blanks by matching the numbers to the letters below.

$$1 = C$$

$$5 = R$$

$$2 = D$$

$$6 = S$$

$$3 = E$$

$$7 = U$$

$$4 = L$$

$$8 = Y$$

Fill	in the	Blank
1 166		Diain

Directions: In the following sentences, fill in the blanks using words from the word bank below.

- 1. Litter is ______ to clean up.
- 2. Don't _____ Mississippi.
- 3. Litter can spread ______ which can make us sick.
- 4. Litter can _____ animals.
- 5. _____ on the road can cause auto accidents.
- 6. I will keep the roads, water and beach litter ______.
- 7. Littering is against the _____.
- 8. We are _____ to live in a litter free community.

costly	trash	germs	harm
litter	free	law	proud

Word Scramble

Unscramble these words to find out the most often littered pieces of trash.

1. RPEPA	
2. EPWPRASR	
3. TSBTOLE	
4. NASC	
5. ISLPCAT	

Why Recycle? Crack the Code!

Use the code to find out why it is better to recycle.



To trash or not to trash?

trash: broken, discarded or worthless things, rubbish **recyclables:** materials which can be reused

Color the things below which can be saved from becoming trash.



grass clippings

newspapers

old books

How many words can you make from

LITTER PREVENTION

_	
_	
_	
_	
_	
_	
-	
•	
_	

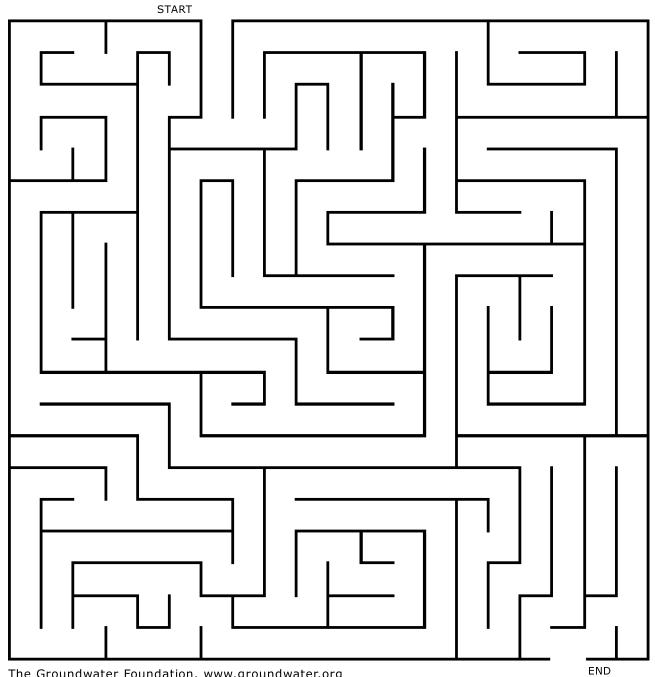
Can you find all of the things in the creek that do not belong?



Recycle Maze



Find your way through the maze and put this aluminum can in the recycle bin.



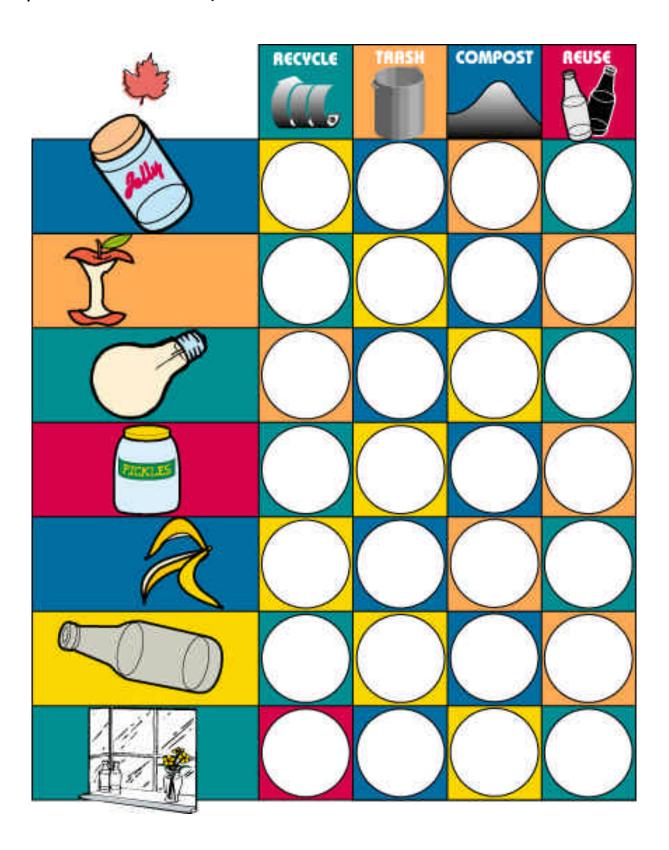
The Groundwater Foundation. www.groundwater.org



Where Does It Go?

What should be done with the items below? Should you recycle it, put it in the trash, put it in the compost pile or reuse it again? Print out game and put an X in the correct column(s).

(There may be more than one answer).



Where Does It Go? - Answers

apple corelight bulbtrash

pickle jar - recycle & reuse

banana peel - compost

soda bottle - recycle & reuse

window pane - trash



Resources

Resources

http://www.gomdot.com

http://www.kab.org

http://kid-at-art.com/htdoc/lesson1.html

https://utahrecycles.org

http://www.fundyrecycles.com

http://www.groundwater.org

http://www.dswa.com/

http://www.co.henrico.va.us/utility/khbeautiful/education.html

http://www.kindergarten-lessons.com

http://www.stormwatercoalition.org

Online Teacher Resources

Go MDOT www.GoMDOT.com/DontTrashMS

Keep Mississippi Beautiful keepmsbeautiful.com

Keep America Beautiful www.kab.org

Ideas for Recyclable Art Projects

KinderArt (K5 up) www.kinderart.com/recycle/

 Recycling Ideas and Crafts Projects www.allfreecrafts.com/recycling-crafts/index.shtml

Student Online Games

EPA Kids www.epa.gov/kids/game.htm

Ollie's World www.olliesworld.com